SCORE Search Results Details for Application 10516759 and Search Result 20081112_112524_us-10-516-759-14_copy_24_81.rag.

This page gives you Search Results detail for the Application 10516759 and Search Result 20081112_112524_us-10-516-759-14_copy_24_81.rag.

Go Back to previous page

GenCore version 6.3

OM protein - protein search, using sw model

Run on: November 12, 2008, 12:08:42 ; Search time 117 Seconds
(without alignments)
372.434 Million cell updates/sec

Title: US-10-516-759-14_COPY_24_81
Perfect score: 350
Sequence: 1 DIKHNRPRRDCVAEGKVCDP.....RNYSRGGVCVTHCNFLNGEP 58

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 4151667 seqs, 751288301 residues

Total number of hits satisfying chosen parameters: 4151667

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_200808:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000:*
4: geneseqp2001:*
5: geneseqp2002:*
6: geneseqp2003a:*
7: geneseqp2003b:*

8: geneseqp2004a:*
9: geneseqp2004b:*
10: geneseqp2005:*
11: geneseqp2006:*
12: geneseqp2007:*
13: geneseqp2008:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	350	100.0	82	7	ADE36725	Ade36725 Human Erb
2	350	100.0	89	7	ADE36731	Ade36731 Human Erb
3	350	100.0	531	12	AJE77228	Aje77228 Human Erb
4	350	100.0	569	10	AOJ20844	Aoj20844 Human Erb
5	350	100.0	570	11	AEH24404	Aeh24404 HUMEGFRBB
6	350	100.0	621	13	AOG42613	Aog42613 Human HER
7	350	100.0	621	13	AOG42228	Aog42228 Human HER
8	350	100.0	624	11	AEH24397	Aeh24397 HUMEGFRBB
9	350	100.0	624	11	AEH24406	Aeh24406 HUMEGFRBB
10	350	100.0	640	7	ADE36713	Ade36713 Human Erb
11	350	100.0	640	8	ADW39268	Adw39268 Human Erb
12	350	100.0	699	11	AEH24399	Aeh24399 HUMEGFRBB
13	350	100.0	857	13	AOG42248	Aog42248 Human HER
14	350	100.0	866	13	AOG42602	Aog42602 Human HER
15	350	100.0	1298	11	AEK41239	Aek41239 Human tyr
16	350	100.0	1300	10	AOJ20843	Aoj20843 Human Erb
17	350	100.0	1302	10	AOJ20845	Aoj20845 Human Erb
18	350	100.0	1342	2	AAR13833	Aar13833 HER-3 epi
19	350	100.0	1342	2	AAR88453	Aar88453 erbB-3 po
20	350	100.0	1342	2	AAW69406	Aaw69406 ErbB-3 gl
21	350	100.0	1342	2	AAY16594	Aay16594 erbB-3 pr
22	350	100.0	1342	4	AAG65359	Aag65359 Human Her
23	350	100.0	1342	6	ADE62708	Ade62708 Human Pro
24	350	100.0	1342	6	ADB67646	Adb67646 Human epi
25	350	100.0	1342	6	ADB67617	Adb67617 Human epi
26	350	100.0	1342	6	ADB67645	Adb67645 Human epi
27	350	100.0	1342	6	ADB67647	Adb67647 Human epi
28	350	100.0	1342	6	ADB67642	Adb67642 Human epi
29	350	100.0	1342	6	ADB67644	Adb67644 Human epi
30	350	100.0	1342	6	ADB67643	Adb67643 Human epi
31	350	100.0	1342	6	ADN39920	Adn39920 Cancer/an
32	350	100.0	1342	7	ADA37256	Ada37256 Human Erb
33	350	100.0	1342	7	ADM10301	Adm10301 Human epi

34	350	100.0	1342	7	ADD52685	Add52685 Human erb
35	350	100.0	1342	7	ADE36712	Ade36712 Human Erb
36	350	100.0	1342	8	ADW39267	Adw39267 Human Erb
37	350	100.0	1342	8	ADJ66656	Adj66656 Her3 prot
38	350	100.0	1342	8	ADO56208	Ado56208 Human Erb
39	350	100.0	1342	8	ADP54346	Adp54346 Human PRO
40	350	100.0	1342	8	ADQ19366	Adq19366 Human sof
41	350	100.0	1342	9	AJU90553	Aju90553 Human ERB
42	350	100.0	1342	10	ADX05662	Adx05662 Cyclin-de
43	350	100.0	1342	10	ADZ72376	Adz72376 Human epi
44	350	100.0	1342	10	AEB87743	Aeb87743 Human ERB
45	350	100.0	1342	10	AEC21999	Aec21999 Human ERB

ALIGNMENTS

RESULT 1
ADE36725
ID   ADE36725 standard; protein; 82 AA.
XX
AC   ADE36725;
XX
DT   29-JAN-2004 (first entry)
XX
DE   Human ErbB-3-f12 amino acid sequence SEQ ID NO:14.
XX
KW   neoplasm; ErbB-3; immune response; cytostatic; gene therapy; cancer;
KW   human.
XX
OS   Homo sapiens.
XX
PN   WO2003080835-A1.
XX
PD   02-OCT-2003.
XX
PF   26-MAR-2003; 2003WO-CN000217.
XX
PR   26-MAR-2002; 2002CN-00116259.
XX
PA   (ZENS-) ZENSUN SHANGHAI SCI TECH LTD.
XX
PI   Zhou M;
XX
DR   WPI; 2003-876924/81.
XX
PT   Use of an ErbB-3 protein, a nucleic acid encoding an ErbB-3 protein or
PT   their fragments, for treating, preventing or delaying neoplasms (e.g.
PT   urethra, uterus, vagina or vulva neoplasm) or cancers (e.g. breast, ovary

PT or colon cancer).
XX
PS Claim 22; SEQ ID NO 14; 68pp; English.
XX
CC The present invention describes a method for treating, preventing or
CC delaying neoplasm in a mammal. The method comprises administering an ErbB
CC -3 protein, a nucleic acid encoding an ErbB-3 protein, or their
CC functional fragments, where an immune response is generated against the
CC neoplasm. ErbB-3 has cytostatic activity, and can be used in gene
CC therapy. The method is useful for treating, preventing or delaying
CC neoplasms (e.g. adrenal gland, anus, auditory nerve, bile ducts, bladder,
CC bone, brain, breast, buccal, central nervous system, cervix, colon, ear,
CC endometrium, oesophagus, eye, eyelids, fallopian tube, gastrointestinal
CC tract, head and neck, heart, kidney, larynx, liver, lung, mandible,
CC mandibular condyle, maxilla, mouth, nasopharynx, nose, oral cavity,
CC ovary, pancreas, parotid gland, penis, pinna, pituitary, prostate gland,
CC rectum, retina, salivary glands, skin, small intestine, spinal cord,
CC stomach, testes, thyroid, tonsil, urethra, uterus, vagina,
CC vestibulocochlear nerve, or vulva neoplasm), or cancers (breast, ovary,
CC stomach, prostate, colon and lung cancer). The present sequence
CC represents a human ErbB-3 amino acid sequence, which is used in the
CC exemplification of the present invention. N.B. The present sequence is
CC designated as SEQ ID NO:14 in the Sequence Listing but does not
CC correspond with the SEQ ID NO:14 given in figure 23.
XX
SQ Sequence 82 AA;

Query Match 100.0%; Score 350; DB 7; Length 82;
Best Local Similarity 100.0%; Pred. No. 6.5e-28;
Matches 58; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DIKHNRPRRDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSRGGVCVTHCNFLNGEP 58
||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 24 DIKHNRPRRDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSRGGVCVTHCNFLNGEP 81

RESULT 2
ADE36731
ID ADE36731 standard; protein; 89 AA.
XX
AC ADE36731;
XX
DT 29-JAN-2004 (first entry)
XX
DE Human ErbB-3-f12 amino acid sequence SEQ ID NO:14.
XX
KW neoplasm; ErbB-3; immune response; cytostatic; gene therapy; cancer;
KW human.
XX

OS Homo sapiens.
XX
PN WO2003080835-A1.
XX
PD 02-OCT-2003.
XX
PF 26-MAR-2003; 2003WO-CN000217.
XX
PR 26-MAR-2002; 2002CN-00116259.
XX
PA (ZENS-) ZENSUN SHANGHAI SCI TECH LTD.
XX
PI Zhou M;
XX
DR WPI; 2003-876924/81.
DR N-PSDB; ADE36730.
XX
PT Use of an ErbB-3 protein, a nucleic acid encoding an ErbB-3 protein or
PT their fragments, for treating, preventing or delaying neoplasms (e.g.
PT urethra, uterus, vagina or vulva neoplasm) or cancers (e.g. breast, ovary
PT or colon cancer).
XX
PS Claim 22; Fig 23; 68pp; English.
XX
CC The present invention describes a method for treating, preventing or
CC delaying neoplasm in a mammal. The method comprises administering an ErbB
CC -3 protein, a nucleic acid encoding an ErbB-3 protein, or their
CC functional fragments, where an immune response is generated against the
CC neoplasm. ErbB-3 has cytostatic activity, and can be used in gene
CC therapy. The method is useful for treating, preventing or delaying
CC neoplasms (e.g. adrenal gland, anus, auditory nerve, bile ducts, bladder,
CC bone, brain, breast, buccal, central nervous system, cervix, colon, ear,
CC endometrium, oesophagus, eye, eyelids, fallopian tube, gastrointestinal
CC tract, head and neck, heart, kidney, larynx, liver, lung, mandible,
CC mandibular condyle, maxilla, mouth, nasopharynx, nose, oral cavity,
CC ovary, pancreas, parotid gland, penis, pinna, pituitary, prostate gland,
CC rectum, retina, salivary glands, skin, small intestine, spinal cord,
CC stomach, testes, thyroid, tonsil, urethra, uterus, vagina,
CC vestibulocochlear nerve, or vulva neoplasm), or cancers (breast, ovary,
CC stomach, prostate, colon and lung cancer). The present sequence
CC represents a human ErbB-3 amino acid sequence, which is used in the
CC exemplification of the present invention. N.B. The present sequence is
CC designated as SEQ ID NO:14 in figure 23 but does not correspond with the
CC SEQ ID NO:14 given in the Sequence Listing.
XX
SQ Sequence 89 AA;

Query Match 100.0%; Score 350; DB 7; Length 89;
Best Local Similarity 100.0%; Pred. No. 7e-28;

Matches 58; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 DIKHNRPRRDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSRGGVCVTHCNFLNGEP 58
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         24 DIKHNRPRRDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSRGGVCVTHCNFLNGEP 81
```

RESULT 3
AJE77228
ID AJE77228 standard; protein; 531 AA.
XX
AC AJE77228;
XX
DT 18-OCT-2007 (first entry)
XX
DE Human ErbB3 tyrosine kinase receptor ectodomain protein (aa: 1-531).
XX
KW Diagnosis; prognosis; therapeutic; cancer;
KW Erbb3 tyrosine kinase receptor.
XX
OS Homo sapiens.
XX
PN WO2007092932-A2.
XX
PD 16-AUG-2007.
XX
PF 08-FEB-2007; 2007WO-US061863.
XX
PR 08-FEB-2006; 2006US-0771237P.
PR 05-OCT-2006; 2006US-0828343P.
XX
PA (TARG-) TARGETED MOLECULAR DIAGNOSTICS LLC.
PA (YEDA) YEDA RES & DEV CO LTD.
XX
PI Bacus SS, Hill JE, Yarden Y, Kochupurakkal BS;
XX
DR WPI; 2007-690352/64.
DR N-PSDB; AJE77227.
DR REFSEQ; NP_001973.
XX
PT New bivalent binding molecule having binding affinity for ErbB ligand at
PT separate binding sites in a single covalently joined protein molecule,
PT useful for treating a disease or condition by removal or inhibition of an
PT ErbB ligand.
XX
PS Claim 10; SEQ ID NO 6; 37pp; English.
XX
CC The present invention relates to new bivalent ErbB-based ligand binding
CC molecules along with their method of preparation and use. The binding

CC molecule can be a protein expressed from a recombinant DNA molecule and
CC contain two extracellular domains of an ErbB receptor wherein both the
CC domains bind to ErbB receptor ligands. These binding molecules act as
CC traps to bind and sequester ligands, thus making them unavailable for
CC binding to cellular ErbB receptors. The bivalent binding molecules and
CC methods of the invention are useful for diagnosing and prognosing cancer
CC and treating a disease or condition that is improved, ameliorated or
CC inhibited by removal or inhibition of an ErbB ligand. The present
CC sequence is human erythroblastic leukemia viral oncogene homolog 3
CC tyrosine kinase receptor (ErbB3 tyrosine kinase receptor; HER3) receptor
CC ectodomain protein. Note: The sequence data for this patent did not form
CC part of the printed specification, but was obtained in electronic format
CC directly from WIPO at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 531 AA;

Query Match 100.0%; Score 350; DB 12; Length 531;
Best Local Similarity 100.0%; Pred. No. 3.6e-27;
Matches 58; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 DIKHNRPRRDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSRGGVCVTHCNFLNGEP 58
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        464 DIKHNRPRRDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSRGGVCVTHCNFLNGEP 521
```

RESULT 4
AOJ20844
ID AOJ20844 standard; protein; 569 AA.
XX
AC AOJ20844;
XX
DT 06-MAR-2008 (first entry)
XX
DE Human ErbB3 receptor tyrosine kinase protein SEQ:97.
XX
KW splicing; gene identification signature analysis; therapeutic; diagnosis;
KW cancer; cytostatic; inflammation; antiinflammatory; autoimmune disease;
KW immunosuppresive; graft rejection.
XX
OS Homo sapiens.
XX
PN WO2005071059-A2.
XX
PD 04-AUG-2005.
XX
PF 27-JAN-2005; 2005WO-IL000107.
XX
PR 27-JAN-2004; 2004US-0539128P.
PR 15-JUN-2004; 2004US-0579202P.

XX
PA (COMP-) COMPUGEN LTD.
XX
PI Sorek R, Pollock S, Diber A, Levine Z, Nemzer S, Kol G, Wool A;
PI Haviv A, Cohen Y, Cohen Y, Shemesh R, Savitsky K;
XX
DR WPI; 2005-555488/56.
XX
PT Identifying alternatively spliced exons, involves scoring each of several
PT exon sequences derived from genes of species according to one or more
PT sequence parameters.
XX
PS Example 3; SEQ ID NO 97; 991pp; English.
XX
CC The present invention relates to a novel method of identifying (M1)
CC alternatively spliced exons. The method comprises scoring each of several
CC exon sequences derived from genes of a species according to at least one
CC sequence parameter, where the exon sequences of the several exon
CC sequences scoring above a predetermined threshold represent alternatively
CC spliced exons, thus identifying the alternatively spliced exons. Also
CC claimed are: a system (S1) for generating a database of alternatively
CC spliced exons; predicting (M2) expression products of a gene of interest
CC and analyzing chromosomal location of each of the alternatively spliced
CC exons with respect to coding sequence of the gene of interest to thus
CC predict expression products of the gene of interest. (M1) is useful for
CC identifying alternatively spliced exons. (S1) is useful for generating a
CC database of alternatively spliced exons. The DNA and the protein
CC sequences of the invention are useful for the diagnosis and/or treatment
CC of the diseases like cancer, inflammatory disease, autoimmune disease,
CC allergy and graft rejection. The present sequence represents a human
CC ErbB3 receptor tyrosine kinase protein.
XX
SQ Sequence 569 AA;

Query Match 100.0%; Score 350; DB 10; Length 569;
Best Local Similarity 100.0%; Pred. No. 3.8e-27;
Matches 58; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 DIKHNRPRRDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSRGGVCVTHCNFLNGEP 58
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        483 DIKHNRPRRDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSRGGVCVTHCNFLNGEP 540
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RESULT 5
AEH24404
ID AEH24404 standard; protein; 570 AA.
XX
AC AEH24404;
XX

DT 29-JUN-2006 (first entry)
XX
DE HUMEGFRBB3_PEA_1_P53 polypeptide.
XX
KW diagnostic; prognosis; genetic marker; screening; cancer; cytostatic;
KW neoplasm; HUMEGFRBB3_PEA_1_P53; protein-tyrosine kinase erbB-3 precursor;
KW ERBB3.
XX
OS Homo sapiens.
XX
PN WO2006043271-A1.
XX
PD 27-APR-2006.
XX
PF 16-OCT-2005; 2005WO-IL001096.
XX
PR 22-OCT-2004; 2004US-0621004P.
PR 18-NOV-2004; 2004US-0628529P.
XX
PA (COMP-) COMPUGEN LTD.
XX
PI Novik A, Pollock S, Levine Z, Dahary D, Sorek R, Sella-Tavor O;
PI Cohen-Dayag A, Sameach-Greenwald S, Walach S;
XX
DR WPI; 2006-331789/34.
DR N-PSDB; AEH24321.
XX
PT New isolated polynucleotide and polypeptide markers, useful as diagnostic
PT markers for diagnosing diseases, predicting response to treatment,
PT monitoring treatment, or determining prognosis of a marker-detectable
PT disease.
XX
PS Example 5; SEQ ID NO 144; 421pp; English.
XX
CC The invention describes an isolated polynucleotide comprising
CC HUMA1ACM_PEA 2 _T21, HUMA1ACM_PEA 2 _T27, or HUMA1ACM_PEA 2 _T7
CC comprising 1320, 1239, or 2713 bp (SEQ ID NO. 1, 2, or 3). Also described
CC are: an isolated polypeptide selected from HUMA1ACM_PEA 2 _P36 (SEQ ID
CC NO. 51), HUMA1ACM_PEA 2 _P49 (SEQ ID NO. 52), or HUMA1ACM_PEA 2 _P59 (SEQ
CC ID NO. 53); an isolated polypeptide encoding for a head of: (a)
CC HUMA1ACM_PEA 2 _P36 comprising a polypeptide 70% homologous to SEQ ID NO.
CC 180 or 182 of HUMA1ACM_PEA 2 _P36; (b) HUMA1ACM_PEA 2 _P49 comprising a
CC polypeptide 70% homologous to SEQ ID NO. 182 of HUMA1ACM_PEA 2 _P49; or
CC (c) HUMA1ACM_PEA 2 _P59 comprising a polypeptide 70% homologous to SEQ ID
CC NO. 182 of HUMA1ACM_PEA 2 _P59; an isolated polypeptide encoding for a
CC tail of: (a) HUMA1ACM_PEA 2 _P36 comprising a polypeptide 70% homologous
CC to SEQ ID NO. 181 in HUMA1ACM_PEA 2 _P36; (b) HUMA1ACM_PEA 2 _P49
CC comprising a polypeptide 70% homologous to SEQ ID NO. 183 in HUMA1ACM_PEA
CC 2 _P49; or (c) HUMA1ACM_PEA 2 _P59 comprising a polypeptide 70%

CC homologous to SEQ ID NO. 185 or 208 in HUMA1ACM_PEA 2 _P59; a primer pair
CC comprising a pair of isolated oligonucleotides capable of amplifying the
CC amplicon; an antibody capable of specifically binding to an epitope of
CC the amino acid sequence; a kit for detecting a marker-detectable disease
CC comprising a kit detecting specific expression of a splice variant; a
CC biomarker capable of detecting marker-detectable disease comprising the
CC nucleic acid sequences or amino acid sequence, or its fragments. The
CC polynucleotides and polypeptides are useful as diagnostic markers for
CC diagnosing and screening for diseases diseases e.g., cancer, selecting a
CC therapy for a marker-detectable disease and determining prognosis of a
CC marker-detectable disease, as well as for predicting response to
CC treatment and monitoring treatment. This sequence represents a
CC HUMEGFRBB3_PEA_1_P53 polypeptide, a transcript from the HUMEGFRBB3
CC cluster and variant of protein-tyrosine kinase erbB-3 precursor useful as
CC a diagnostic marker.
XX
SQ Sequence 570 AA;

Query Match 100.0%; Score 350; DB 11; Length 570;
Best Local Similarity 100.0%; Pred. No. 3.8e-27;
Matches 58; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DIKHNRPRRDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSRGGVCVTHCNFLNGEP 58
||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 483 DIKHNRPRRDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSRGGVCVTHCNFLNGEP 540

RESULT 6
AOG42613
ID AOG42613 standard; protein; 621 AA.
XX
AC AOG42613;
XX
DT 06-MAR-2008 (first entry)
XX
DE Human HER3 receptor extracellular domain (HF310) mutant protein.
XX
KW Therapeutic; cancer; cytostatic; pancreas tumor; stomach tumor;
KW head & neck tumor; uterine cervix tumor; lung tumor; colorectal tumor;
KW endometroid carcinoma; prostate tumor; esophagus tumor; ovary tumor;
KW uterus tumor; glioma; bladder tumor; renal tumor; breast tumor;
KW hyperproliferation; ocular disease; ophthalmological;
KW diabetic retinopathy; antidiabetic; psoriasis; antipsoriatic; restenosis;
KW vasotropic; stenosis; atherosclerosis; antiarteriosclerotic;
KW chronic obstructive airway disease; respiratory-gen.; inflammation;
KW antiinflammatory; angiogenesis disorder; antiangiogenic; gene therapy;
KW HER3; receptor; ErbB3; mutein.
XX
OS Homo sapiens.

OS Synthetic.
XX
FH Key Location/Qualifiers
FT Misc-difference 541
FT /note= "Wild type Gly replaced with Glu"
XX
PN WO2007146959-A2.
XX
PD 21-DEC-2007.
XX
PF 12-JUN-2007; 2007WO-US071041.
XX
PR 12-JUN-2006; 2006US-0813260P.
PR 29-SEP-2006; 2006US-0848542P.
PR 05-JAN-2007; 2007US-0878941P.
XX
PA (RECE-) RECEPTOR BIOLOGIX INC.
XX
PI Shepard HM, Jin P, Burton LE, Beryt M;
XX
DR WPI; 2008-B51284/10.
XX
PT New multimer comprising extracellular domain ECD from HER1 receptor,
PT useful for treating cancer, inflammatory disease, angiogenic disease or
PT hyperproliferative disease.
XX
PS Disclosure; Page; 320pp; English.
XX
CC The present invention provides pan-cell surface receptor specific
CC therapeutics including and pan-HER (also referred to as ErbB or EGFR)
CC specific therapeutics that interact with at least two different HER
CC receptor ligands and/or dimerize with or interact with two or more HER
CC cell surface receptors. The invention is useful for treating cancer such
CC as pancreatic, gastric, head and neck, cervical, lung, colorectal,
CC endometrial, prostate, esophageal, ovarian, uterine, glioma, bladder,
CC renal and breast cancer, proliferative diseases such as proliferation
CC and/or migration of smooth muscle cells, disease of the anterior eye,
CC diabetic retinopathy, psoriasis, restenosis, ophthalmic disorders,
CC stenosis, atherosclerosis, hypertension from thickening of blood vessels,
CC bladder diseases and obstructive airway diseases, inflammatory disease
CC and angiogenic disease. The invention is also useful in gene therapy. The
CC present sequence is human HER3 receptor (ErbB3) extracellular domain
CC mutant protein. Note: This sequence is not shown in the specification,
CC but is derived from human HER3 receptor ECD protein shown as SEQ ID NO:
CC 26 in sequence listing of the specification.
XX
SQ Sequence 621 AA;

Query Match 100.0%; Score 350; DB 13; Length 621;

```
  Best Local Similarity   100.0%;  Pred. No. 4.1e-27;
  Matches   58;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 DIKHNRPRRDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSRGGVCVTHCNFLNGEP 58
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        464 DIKHNRPRRDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSRGGVCVTHCNFLNGEP 521


RESULT 7
AOG42228
ID   AOG42228 standard; protein; 621 AA.
XX
AC   AOG42228;
XX
DT   06-MAR-2008  (first entry)
XX
DE   Human HER3 receptor extracellular domain protein, HF310.
XX
KW   Therapeutic; cancer; cytostatic; pancreas tumor; stomach tumor;
KW   head & neck tumor; uterine cervix tumor; lung tumor; colorectal tumor;
KW   endometroid carcinoma; prostate tumor; esophagus tumor; ovary tumor;
KW   uterus tumor; glioma; bladder tumor; renal tumor; breast tumor;
KW   hyperproliferation; ocular disease; ophthalmological;
KW   diabetic retinopathy; antidiabetic; psoriasis; antipsoriatic; restenosis;
KW   vasotropic; stenosis; atherosclerosis; antiarteriosclerotic;
KW   chronic obstructive airway disease; respiratory-gen.; inflammation;
KW   antiinflammatory; angiogenesis disorder; antiangiogenic; gene therapy;
KW   HER3; receptor; ErbB3.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 541
FT                   /note= "Encoded by GAG"
XX
PN   WO2007146959-A2.
XX
PD   21-DEC-2007.
XX
PF   12-JUN-2007; 2007WO-US071041.
XX
PR   12-JUN-2006; 2006US-0813260P.
PR   29-SEP-2006; 2006US-0848542P.
PR   05-JAN-2007; 2007US-0878941P.
XX
PA   (RECE-) RECEPTOR BIOLOGIX INC.
XX
PI   Shepard HM,  Jin P,  Burton LE,  Beryt M;
XX
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DR WPI; 2008-B51284/10.
DR N-PSDB; AOG42227.
XX
PT New multimer comprising extracellular domain ECD from HER1 receptor,
PT useful for treating cancer, inflammatory disease, angiogenic disease or
PT hyperproliferative disease.
XX
PS Claim 95; SEQ ID NO 26; 320pp; English.
XX
CC The present invention provides pan-cell surface receptor specific
CC therapeutics including and pan-HER (also referred to as ErbB or EGFR)
CC specific therapeutics that interact with at least two different HER
CC receptor ligands and/or dimerize with or interact with two or more HER
CC cell surface receptors. The invention is useful for treating cancer such
CC as pancreatic, gastric, head and neck, cervical, lung, colorectal,
CC endometrial, prostate, esophageal, ovarian, uterine, glioma, bladder,
CC renal and breast cancer, proliferative diseases such as proliferation
CC and/or migration of smooth muscle cells, disease of the anterior eye,
CC diabetic retinopathy, psoriasis, restenosis, ophthalmic disorders,
CC stenosis, atherosclerosis, hypertension from thickening of blood vessels,
CC bladder diseases and obstructive airway diseases, inflammatory disease
CC and angiogenic disease. The invention is also useful in gene therapy. The
CC present sequence is human HER3 receptor (ErbB3) extracellular domain
CC protein.
XX
SQ Sequence 621 AA;

Query Match 100.0%; Score 350; DB 13; Length 621;
Best Local Similarity 100.0%; Pred. No. 4.1e-27;
Matches 58; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 DIKHNRPRRDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSRGGVCVTHCNFLNGEP 58
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        464 DIKHNRPRRDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSRGGVCVTHCNFLNGEP 521
```

RESULT 8
AEH24397
ID AEH24397 standard; protein; 624 AA.
XX
AC AEH24397;
XX
DT 29-JUN-2006 (first entry)
XX
DE HUMEGFRBB3_PEA_1_P15 polypeptide.
XX
KW diagnostic; prognosis; genetic marker; screening; cancer; cytostatic;
KW neoplasm; HUMEGFRBB3_PEA_1_P15; protein-tyrosine kinase erbB-3 precursor;
KW ERBB3.

XX
OS Homo sapiens.
XX
PN WO2006043271-A1.
XX
PD 27-APR-2006.
XX
PF 16-OCT-2005; 2005WO-IL001096.
XX
PR 22-OCT-2004; 2004US-0621004P.
PR 18-NOV-2004; 2004US-0628529P.
XX
PA (COMP-) COMPUGEN LTD.
XX
PI Novik A, Pollock S, Levine Z, Dahary D, Sorek R, Sella-Tavor O;
PI Cohen-Dayag A, Sameach-Greenwald S, Walach S;
XX
DR WPI; 2006-331789/34.
DR N-PSDB; AEH24320.
XX
PT New isolated polynucleotide and polypeptide markers, useful as diagnostic
PT markers for diagnosing diseases, predicting response to treatment,
PT monitoring treatment, or determining prognosis of a marker-detectable
PT disease.
XX
PS Example 5; SEQ ID NO 137; 421pp; English.
XX
CC The invention describes an isolated polynucleotide comprising
CC HUMA1ACM_PEA 2 _T21, HUMA1ACM_PEA 2 _T27, or HUMA1ACM_PEA 2 _T7
CC comprising 1320, 1239, or 2713 bp (SEQ ID NO. 1, 2, or 3). Also described
CC are: an isolated polypeptide selected from HUMA1ACM_PEA 2 _P36 (SEQ ID
CC NO. 51), HUMA1ACM_PEA 2 _P49 (SEQ ID NO. 52), or HUMA1ACM_PEA 2 _P59 (SEQ
CC ID NO. 53); an isolated polypeptide encoding for a head of: (a)
CC HUMA1ACM_PEA 2 _P36 comprising a polypeptide 70% homologous to SEQ ID NO.
CC 180 or 182 of HUMA1ACM_PEA 2 _P36; (b) HUMA1ACM_PEA 2 _P49 comprising a
CC polypeptide 70% homologous to SEQ ID NO. 182 of HUMA1ACM_PEA 2 _P49; or
CC (c) HUMA1ACM_PEA 2 _P59 comprising a polypeptide 70% homologous to SEQ ID
CC NO. 182 of HUMA1ACM_PEA 2 _P59; an isolated polypeptide encoding for a
CC tail of: (a) HUMA1ACM_PEA 2 _P36 comprising a polypeptide 70% homologous
CC to SEQ ID NO. 181 in HUMA1ACM_PEA 2 _P36; (b) HUMA1ACM_PEA 2 _P49
CC comprising a polypeptide 70% homologous to SEQ ID NO. 183 in HUMA1ACM_PEA
CC 2 _P49; or (c) HUMA1ACM_PEA 2 _P59 comprising a polypeptide 70%
CC homologous to SEQ ID NO. 185 or 208 in HUMA1ACM_PEA 2 _P59; a primer pair
CC comprising a pair of isolated oligonucleotides capable of amplifying the
CC amplicon; an antibody capable of specifically binding to an epitope of
CC the amino acid sequence; a kit for detecting a marker-detectable disease
CC comprising a kit detecting specific expression of a splice variant; a
CC biomarker capable of detecting marker-detectable disease comprising the
CC nucleic acid sequences or amino acid sequence, or its fragments. The

```
CC   polynucleotides and polypeptides are useful as diagnostic markers for
CC   diagnosing and screening for diseases diseases e.g., cancer, selecting a
CC   therapy for a marker-detectable disease and determining prognosis of a
CC   marker-detectable disease, as well as for predicting response to
CC   treatment and monitoring treatment. This sequence represents a
CC   HUMEGFRBB3_PEA_1_P15 polypeptide, a transcript from the HUMEGFRBB3
CC   cluster and variant of protein-tyrosine kinase erbB-3 precursor useful as
CC   a diagnostic marker.
XX
SQ   Sequence 624 AA;

  Query Match             100.0%;  Score 350;  DB 11;  Length 624;
  Best Local Similarity   100.0%;  Pred. No. 4.1e-27;
  Matches   58;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 DIKHNRPRRDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSRGGVCVTHCNFLNGEP 58
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        483 DIKHNRPRRDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSRGGVCVTHCNFLNGEP 540


RESULT 9
AEH24406
ID   AEH24406 standard; protein; 624 AA.
XX
AC   AEH24406;
XX
DT   29-JUN-2006  (first entry)
XX
DE   HUMEGFRBB3_PEA_1_P55 polypeptide.
XX
KW   diagnostic; prognosis; genetic marker; screening; cancer; cytostatic;
KW   neoplasm; HUMEGFRBB3_PEA_1_P55; protein-tyrosine kinase erbB-3 precursor;
KW   ERBB3.
XX
OS   Homo sapiens.
XX
PN   WO2006043271-A1.
XX
PD   27-APR-2006.
XX
PF   16-OCT-2005; 2005WO-IL001096.
XX
PR   22-OCT-2004; 2004US-0621004P.
PR   18-NOV-2004; 2004US-0628529P.
XX
PA   (COMP-) COMPUGEN LTD.
XX
PI   Novik A,  Pollock S,  Levine Z,  Dahary D,  Sorek R,  Sella-Tavor O;
PI   Cohen-Dayag A,  Sameach-Greenwald S,  Walach S;
```

XX
DR WPI; 2006-331789/34.
DR N-PSDB; AEH24323.
XX
PT New isolated polynucleotide and polypeptide markers, useful as diagnostic
PT markers for diagnosing diseases, predicting response to treatment,
PT monitoring treatment, or determining prognosis of a marker-detectable
PT disease.
XX
PS Example 5; SEQ ID NO 146; 421pp; English.
XX
CC The invention describes an isolated polynucleotide comprising
CC HUMA1ACM_PEA 2 _T21, HUMA1ACM_PEA 2 _T27, or HUMA1ACM_PEA 2 _T7
CC comprising 1320, 1239, or 2713 bp (SEQ ID NO. 1, 2, or 3). Also described
CC are: an isolated polypeptide selected from HUMA1ACM_PEA 2 _P36 (SEQ ID
CC NO. 51), HUMA1ACM_PEA 2 _P49 (SEQ ID NO. 52), or HUMA1ACM_PEA 2 _P59 (SEQ
CC ID NO. 53); an isolated polypeptide encoding for a head of: (a)
CC HUMA1ACM_PEA 2 _P36 comprising a polypeptide 70% homologous to SEQ ID NO.
CC 180 or 182 of HUMA1ACM_PEA 2 _P36; (b) HUMA1ACM_PEA 2 _P49 comprising a
CC polypeptide 70% homologous to SEQ ID NO. 182 of HUMA1ACM_PEA 2 _P49; or
CC (c) HUMA1ACM_PEA 2 _P59 comprising a polypeptide 70% homologous to SEQ ID
CC NO. 182 of HUMA1ACM_PEA 2 _P59; an isolated polypeptide encoding for a
CC tail of: (a) HUMA1ACM_PEA 2 _P36 comprising a polypeptide 70% homologous
CC to SEQ ID NO. 181 in HUMA1ACM_PEA 2 _P36; (b) HUMA1ACM_PEA 2 _P49
CC comprising a polypeptide 70% homologous to SEQ ID NO. 183 in HUMA1ACM_PEA
CC 2 _P49; or (c) HUMA1ACM_PEA 2 _P59 comprising a polypeptide 70%
CC homologous to SEQ ID NO. 185 or 208 in HUMA1ACM_PEA 2 _P59; a primer pair
CC comprising a pair of isolated oligonucleotides capable of amplifying the
CC amplicon; an antibody capable of specifically binding to an epitope of
CC the amino acid sequence; a kit for detecting a marker-detectable disease
CC comprising a kit detecting specific expression of a splice variant; a
CC biomarker capable of detecting marker-detectable disease comprising the
CC nucleic acid sequences or amino acid sequence, or its fragments. The
CC polynucleotides and polypeptides are useful as diagnostic markers for
CC diagnosing and screening for diseases diseases e.g., cancer, selecting a
CC therapy for a marker-detectable disease and determining prognosis of a
CC marker-detectable disease, as well as for predicting response to
CC treatment and monitoring treatment. This sequence represents a
CC HUMEGFRBB3_PEA_1_P55 polypeptide, a transcript from the HUMEGFRBB3
CC cluster and variant of protein-tyrosine kinase erbB-3 precursor useful as
CC a diagnostic marker.
XX
SQ Sequence 624 AA;

Query Match 100.0%; Score 350; DB 11; Length 624;
Best Local Similarity 100.0%; Pred. No. 4.1e-27;
Matches 58; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DIKHNRPRRDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSRGGVCVTHCNFLNGEP 58

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                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        483 DIKHNRPRRDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSRGGVCVTHCNFLNGEP 540


RESULT 10
ADE36713
ID   ADE36713 standard; protein; 640 AA.
XX
AC   ADE36713;
XX
DT   29-JAN-2004  (first entry)
XX
DE   Human ErbB-3 partial amino acid sequence SEQ ID NO:2.
XX
KW   neoplasm; ErbB-3; immune response; cytostatic; gene therapy; cancer;
KW   human.
XX
OS   Homo sapiens.
XX
PN   WO2003080835-A1.
XX
PD   02-OCT-2003.
XX
PF   26-MAR-2003; 2003WO-CN000217.
XX
PR   26-MAR-2002; 2002CN-00116259.
XX
PA   (ZENS-) ZENSUN SHANGHAI SCI TECH LTD.
XX
PI   Zhou M;
XX
DR   WPI; 2003-876924/81.
XX
PT   Use of an ErbB-3 protein, a nucleic acid encoding an ErbB-3 protein or
PT   their fragments, for treating, preventing or delaying neoplasms (e.g.
PT   urethra, uterus, vagina or vulva neoplasm) or cancers (e.g. breast, ovary
PT   or colon cancer).
XX
PS   Claim 22; SEQ ID NO 2; 68pp; English.
XX
CC   The present invention describes a method for treating, preventing or
CC   delaying neoplasm in a mammal. The method comprises administering an ErbB
CC   -3 protein, a nucleic acid encoding an ErbB-3 protein, or their
CC   functional fragments, where an immune response is generated against the
CC   neoplasm. ErbB-3 has cytostatic activity, and can be used in gene
CC   therapy. The method is useful for treating, preventing or delaying
CC   neoplasms (e.g. adrenal gland, anus, auditory nerve, bile ducts, bladder,
CC   bone, brain, breast, buccal, central nervous system, cervix, colon, ear,
CC   endometrium, oesophagus, eye, eyelids, fallopian tube, gastrointestinal
```

CC tract, head and neck, heart, kidney, larynx, liver, lung, mandible,
CC mandibular condyle, maxilla, mouth, nasopharynx, nose, oral cavity,
CC ovary, pancreas, parotid gland, penis, pinna, pituitary, prostate gland,
CC rectum, retina, salivary glands, skin, small intestine, spinal cord,
CC stomach, testes, thyroid, tonsil, urethra, uterus, vagina,
CC vestibulocochlear nerve, or vulva neoplasm), or cancers (breast, ovary,
CC stomach, prostate, colon and lung cancer). The present sequence
CC represents a human ErbB-3 amino acid sequence, which is used in the
CC exemplification of the present invention.
XX
SQ Sequence 640 AA;

Query Match 100.0%; Score 350; DB 7; Length 640;
Best Local Similarity 100.0%; Pred. No. 4.2e-27;
Matches 58; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 DIKHNRPRRDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSRGGVCVTHCNFLNGEP 58
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        483 DIKHNRPRRDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSRGGVCVTHCNFLNGEP 540
```

RESULT 11
ADW39268
ID ADW39268 standard; protein; 640 AA.
XX
AC ADW39268;
XX
DT 24-MAR-2005 (first entry)
XX
DE Human Erb-3 polypeptide SEQ ID NO 2.
XX
KW therapy; tumor; cytostatic; neoplasm; ErbB-3.
XX
OS Homo sapiens.
XX
PN CN1444992-A.
XX
PD 01-OCT-2003.
XX
PF 26-MAR-2002; 2002CN-00116259.
XX
PR 18-MAR-2002; 2002CN-00107357.
XX
PA (ZESH-) ZESHENG SCI & TECHNOLOGY DEV CO LTD SHAN.
XX
PI Zhou M;
XX
DR WPI; 2004-091783/10.
XX

PT Method and combination for treating tumors based on ERBB-3.
XX
PS Claim 5; SEQ ID NO 2; 45pp; Chinese.
XX
CC The invention describes a composition and method for preventing and
CC treating a tumor of the mammalian or human body. The method involves
CC using the ErbB-3 protein, nucleic acid for encoding the protein, or their
CC functional fragment e.g. the extracellular domain. This is the amino acid
CC sequence of a human Erb-3 polypeptide.
XX
SQ Sequence 640 AA;

Query Match 100.0%; Score 350; DB 8; Length 640;
Best Local Similarity 100.0%; Pred. No. 4.2e-27;
Matches 58; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 DIKHNRPRRDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSRGGVCVTHCNFLNGEP 58
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        483 DIKHNRPRRDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSRGGVCVTHCNFLNGEP 540
```

RESULT 12
AEH24399
ID AEH24399 standard; protein; 699 AA.
XX
AC AEH24399;
XX
DT 29-JUN-2006 (first entry)
XX
DE HUMEGFRBB3_PEA_1_P31 polypeptide.
XX
KW diagnostic; prognosis; genetic marker; screening; cancer; cytostatic;
KW neoplasm; HUMEGFRBB3_PEA_1_P31; protein-tyrosine kinase erbB-3 precursor;
KW ERBB3.
XX
OS Homo sapiens.
XX
PN WO2006043271-A1.
XX
PD 27-APR-2006.
XX
PF 16-OCT-2005; 2005WO-IL001096.
XX
PR 22-OCT-2004; 2004US-0621004P.
PR 18-NOV-2004; 2004US-0628529P.
XX
PA (COMP-) COMPUGEN LTD.
XX
PI Novik A, Pollock S, Levine Z, Dahary D, Sorek R, Sella-Tavor O;

PI Cohen-Dayag A, Sameach-Greenwald S, Walach S;
XX
DR WPI; 2006-331789/34.
DR N-PSDB; AEH24326.
XX
PT New isolated polynucleotide and polypeptide markers, useful as diagnostic
PT markers for diagnosing diseases, predicting response to treatment,
PT monitoring treatment, or determining prognosis of a marker-detectable
PT disease.
XX
PS Example 5; SEQ ID NO 139; 421pp; English.
XX
CC The invention describes an isolated polynucleotide comprising
CC HUMA1ACM_PEA 2 _T21, HUMA1ACM_PEA 2 _T27, or HUMA1ACM_PEA 2 _T7
CC comprising 1320, 1239, or 2713 bp (SEQ ID NO. 1, 2, or 3). Also described
CC are: an isolated polypeptide selected from HUMA1ACM_PEA 2 _P36 (SEQ ID
CC NO. 51), HUMA1ACM_PEA 2 _P49 (SEQ ID NO. 52), or HUMA1ACM_PEA 2 _P59 (SEQ
CC ID NO. 53); an isolated polypeptide encoding for a head of: (a)
CC HUMA1ACM_PEA 2 _P36 comprising a polypeptide 70% homologous to SEQ ID NO.
CC 180 or 182 of HUMA1ACM_PEA 2 _P36; (b) HUMA1ACM_PEA 2 _P49 comprising a
CC polypeptide 70% homologous to SEQ ID NO. 182 of HUMA1ACM_PEA 2 _P49; or
CC (c) HUMA1ACM_PEA 2 _P59 comprising a polypeptide 70% homologous to SEQ ID
CC NO. 182 of HUMA1ACM_PEA 2 _P59; an isolated polypeptide encoding for a
CC tail of: (a) HUMA1ACM_PEA 2 _P36 comprising a polypeptide 70% homologous
CC to SEQ ID NO. 181 in HUMA1ACM_PEA 2 _P36; (b) HUMA1ACM_PEA 2 _P49
CC comprising a polypeptide 70% homologous to SEQ ID NO. 183 in HUMA1ACM_PEA
CC 2 _P49; or (c) HUMA1ACM_PEA 2 _P59 comprising a polypeptide 70%
CC homologous to SEQ ID NO. 185 or 208 in HUMA1ACM_PEA 2 _P59; a primer pair
CC comprising a pair of isolated oligonucleotides capable of amplifying the
CC amplicon; an antibody capable of specifically binding to an epitope of
CC the amino acid sequence; a kit for detecting a marker-detectable disease
CC comprising a kit detecting specific expression of a splice variant; a
CC biomarker capable of detecting marker-detectable disease comprising the
CC nucleic acid sequences or amino acid sequence, or its fragments. The
CC polynucleotides and polypeptides are useful as diagnostic markers for
CC diagnosing and screening for diseases diseases e.g., cancer, selecting a
CC therapy for a marker-detectable disease and determining prognosis of a
CC marker-detectable disease, as well as for predicting response to
CC treatment and monitoring treatment. This sequence represents a
CC HUMEGFRBB3_PEA_1_P31 polypeptide, a transcript from the HUMEGFRBB3
CC cluster and variant of protein-tyrosine kinase erbB-3 precursor useful as
CC a diagnostic marker.
XX
SQ Sequence 699 AA;

Query Match 100.0%; Score 350; DB 11; Length 699;
Best Local Similarity 100.0%; Pred. No. 4.6e-27;
Matches 58; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 DIKHNRPRRDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSRGGVCVTHCNFLNGEP 58
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        483 DIKHNRPRRDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSRGGVCVTHCNFLNGEP 540
```

RESULT 13
AOG42248
ID AOG42248 standard; protein; 857 AA.
XX
AC AOG42248;
XX
DT 06-MAR-2008 (first entry)
XX
DE Human HER3 receptor ECD-IgG1 Fc fusion protein, HF300-Fc.
XX
KW Therapeutic; cancer; cytostatic; pancreas tumor; stomach tumor;
KW head & neck tumor; uterine cervix tumor; lung tumor; colorectal tumor;
KW endometroid carcinoma; prostate tumor; esophagus tumor; ovary tumor;
KW uterus tumor; glioma; bladder tumor; renal tumor; breast tumor;
KW hyperproliferation; ocular disease; ophthalmological;
KW diabetic retinopathy; antidiabetic; psoriasis; antipsoriatic; restenosis;
KW vasotropic; stenosis; atherosclerosis; antiarteriosclerotic;
KW chronic obstructive airway disease; respiratory-gen.; inflammation;
KW antiinflammatory; angiogenesis disorder; antiangiogenic; gene therapy;
KW HER3; receptor; ErbB3; immunoglobulin G1; IgG; fusion protein.
XX
OS Homo sapiens.
XX
FH Key   Location/Qualifiers
FT Region   1. .621
FT   /note= "Human HER3 ECD region"
FT Region   622. .626
FT   /note= "Peptide linker"
FT Region   627. .857
FT   /note= "Human IgG1 Fc region"
XX
PN WO2007146959-A2.
XX
PD 21-DEC-2007.
XX
PF 12-JUN-2007; 2007WO-US071041.
XX
PR 12-JUN-2006; 2006US-0813260P.
PR 29-SEP-2006; 2006US-0848542P.
PR 05-JAN-2007; 2007US-0878941P.
XX
PA (RECE-) RECEPTOR BIOLOGIX INC.
XX
PI Shepard HM, Jin P, Burton LE, Beryt M;

XX
DR WPI; 2008-B51284/10.
DR N-PSDB; AOG42247.
XX
PT New multimer comprising extracellular domain ECD from HER1 receptor,
PT useful for treating cancer, inflammatory disease, angiogenic disease or
PT hyperproliferative disease.
XX
PS Example 2; SEQ ID NO 46; 320pp; English.
XX
CC The present invention provides pan-cell surface receptor specific
CC therapeutics including and pan-HER (also referred to as ErbB or EGFR)
CC specific therapeutics that interact with at least two different HER
CC receptor ligands and/or dimerize with or interact with two or more HER
CC cell surface receptors. The invention is useful for treating cancer such
CC as pancreatic, gastric, head and neck, cervical, lung, colorectal,
CC endometrial, prostate, esophageal, ovarian, uterine, glioma, bladder,
CC renal and breast cancer, proliferative diseases such as proliferation
CC and/or migration of smooth muscle cells, disease of the anterior eye,
CC diabetic retinopathy, psoriasis, restenosis, ophthalmic disorders,
CC stenosis, atherosclerosis, hypertension from thickening of blood vessels,
CC bladder diseases and obstructive airway diseases, inflammatory disease
CC and angiogenic disease. The invention is also useful in gene therapy. The
CC present sequence is human HER3 receptor (ErbB3) extracellular domain-IgG1
CC Fc fusion protein.
XX
SQ Sequence 857 AA;

Query Match 100.0%; Score 350; DB 13; Length 857;
Best Local Similarity 100.0%; Pred. No. 5.5e-27;
Matches 58; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 DIKHNRPRRDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSRGGVCVTHCNFLNGEP 58
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        464 DIKHNRPRRDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSRGGVCVTHCNFLNGEP 521
```

RESULT 14
AOG42602
ID AOG42602 standard; protein; 866 AA.
XX
AC AOG42602;
XX
DT 06-MAR-2008 (first entry)
XX
DE Human HER3 receptor ECD-IgG1 Fc-His tag fusion protein.
XX
KW Therapeutic; cancer; cytostatic; pancreas tumor; stomach tumor;
KW head & neck tumor; uterine cervix tumor; lung tumor; colorectal tumor;

KW endometroid carcinoma; prostate tumor; esophagus tumor; ovary tumor;
KW uterus tumor; glioma; bladder tumor; renal tumor; breast tumor;
KW hyperproliferation; ocular disease; ophthalmological;
KW diabetic retinopathy; antidiabetic; psoriasis; antipsoriatic; restenosis;
KW vasotropic; stenosis; atherosclerosis; antiarteriosclerotic;
KW chronic obstructive airway disease; respiratory-gen.; inflammation;
KW antiinflammatory; angiogenesis disorder; antiangiogenic; gene therapy;
KW epidermal growth factor receptor; HER3; receptor; ErbB3;
KW immunoglobulin G1; IgG; fusion protein.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Region 1. .500
FT /note= "Human EGFR ECD"
FT Region 624. .627
FT /note= "Peptide linker"
FT Region 628. .858
FT /note= "Human IgG1 Fc"
FT Region 859. .860
FT /note= "AgeI linker"
FT Region 861. .866
FT /note= "His tag"
XX
PN WO2007146959-A2.
XX
PD 21-DEC-2007.
XX
PF 12-JUN-2007; 2007WO-US071041.
XX
PR 12-JUN-2006; 2006US-0813260P.
PR 29-SEP-2006; 2006US-0848542P.
PR 05-JAN-2007; 2007US-0878941P.
XX
PA (RECE-) RECEPTOR BIOLOGIX INC.
XX
PI Shepard HM, Jin P, Burton LE, Beryt M;
XX
DR WPI; 2008-B51284/10.
XX
PT New multimer comprising extracellular domain ECD from HER1 receptor,
PT useful for treating cancer, inflammatory disease, angiogenic disease or
PT hyperproliferative disease.
XX
PS Disclosure; SEQ ID NO 407; 320pp; English.
XX
CC The present invention provides pan-cell surface receptor specific
CC therapeutics including and pan-HER (also referred to as ErbB or EGFR)
CC specific therapeutics that interact with at least two different HER

CC receptor ligands and/or dimerize with or interact with two or more HER
CC cell surface receptors. The invention is useful for treating cancer such
CC as pancreatic, gastric, head and neck, cervical, lung, colorectal,
CC endometrial, prostate, esophageal, ovarian, uterine, glioma, bladder,
CC renal and breast cancer, proliferative diseases such as proliferation
CC and/or migration of smooth muscle cells, disease of the anterior eye,
CC diabetic retinopathy, psoriasis, restenosis, ophthalmic disorders,
CC stenosis, atherosclerosis, hypertension from thickening of blood vessels,
CC bladder diseases and obstructive airway diseases, inflammatory disease
CC and angiogenic disease. The invention is also useful in gene therapy. The
CC present sequence is human HER3 (ERBB3) receptor extracellular domain
CC (ECD) IgG1 Fc-His tag fusion protein.
XX
SQ Sequence 866 AA;

Query Match 100.0%; Score 350; DB 13; Length 866;
Best Local Similarity 100.0%; Pred. No. 5.6e-27;
Matches 58; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 DIKHNRPRRDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSRGGVCVTHCNFLNGEP 58
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        464 DIKHNRPRRDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSRGGVCVTHCNFLNGEP 521
```

RESULT 15
AEK41239
ID AEK41239 standard; protein; 1298 AA.
XX
AC AEK41239;
XX
DT 02-NOV-2006 (first entry)
XX
DE Human tyrosine kinase-type receptor (HER3), SEQ ID NO: 114.
XX
KW tyrosine kinase-type receptor; HER3; ERBB3; cell signaling; neoplasm;
KW cytostatic; drug screening; bioluminescence resonance energy transfer;
KW BRET; therapeutic.
XX
OS Homo sapiens.
XX
PN US2006199226-A1.
XX
PD 07-SEP-2006.
XX
PF 01-MAR-2006; 2006US-00365989.
XX
PR 02-MAR-2005; 2005US-0658319P.
XX
PA (SCHI/) SCHIFFER H H.

XX
PI Schiffer HH;
XX
DR WPI; 2006-659129/68.
DR N-PSDB; AEK41238.
XX
PT Evaluating ligand for receptor tyrosine kinase, by contacting cell having
PT kinase and bioluminescent donor moiety and second protein with
PT fluorescent acceptor moiety with test compound, determining interaction
PT of kinase/second protein.
XX
PS Claim 51; SEQ ID NO 114; 32pp; English.
XX
CC The present sequence is that of a human receptor tyrosine kinase (RTK)
CC signaling ligand of the current invention. RTK signaling proteins are
CC involved in transducing the ligand-induced RTK signal from the receptor
CC downstream into the cell. The invention relates to evaluating whether a
CC test compound functions as a ligand for a receptor tyrosine kinase by
CC providing a cell comprising a RTK with a Renilla luciferase
CC bioluminescent donor moiety and a second protein comprising a fluorescent
CC acceptor moiety, contacting the cell with a test compound and determining
CC whether the RTK and the second protein interact in the presence of the
CC test compound. The method involves determining whether the receptor
CC tyrosine kinase and the second protein are within close physical distance
CC to each other, or whether the receptor tyrosine kinase and the second
CC protein will dissociate such that they are no longer within close
CC physical distance to each other. The bioluminescent donor moiety on the
CC receptor tyrosine kinase emits light at a first wavelength in the
CC presence of the substrate, where the energy emitted from the
CC bioluminescent donor moiety is transferred to the fluorescent acceptor
CC moiety on the second protein when the fluorescent acceptor moiety is in
CC close proximity to the bioluminescent donor moiety, and where the
CC fluorescent acceptor moiety emits light at a second wavelength.
CC Modulation of the activity of the receptor tyrosine kinase affects the
CC protein-protein interactions between the receptor tyrosine kinase and the
CC second protein. The fluorescent acceptor moiety is a green fluorescent
CC protein (GFP) 2, a yellow fluorescent protein (YFP) or a CFP moiety. The
CC determination step involves calculating the ratio of light emissions from
CC the fluorescent acceptor moiety and the bioluminescent donor moiety. The
CC second protein is a signaling protein that mediates receptor tyrosine
CC kinase function or signal transduction. The method utilizes
CC bioluminescence resonance energy transfer (BRET) technology. The receptor
CC tyrosine kinase is a fusion protein comprising a tyrosine kinase fused to
CC the fluorescent donor moiety. The determining step comprises determining
CC whether the test compound is an inverse agonist or antagonist. The method
CC is useful for evaluating whether a test compound functions as a ligand
CC for a receptor tyrosine kinase, and for the screening of compounds which
CC may be useful in the treatment of diseases such as cancer. Note: The
CC sequence data for this patent did not form part of the printed

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CC   specification but can be found in electronic format from the USPTO
CC   website at seqdata.uspto.gov/pageRequest=docDetail&DocID=US20060199226A1.
XX
SQ   Sequence 1298 AA;

  Query Match             100.0%;  Score 350;  DB 11;  Length 1298;
  Best Local Similarity   100.0%;  Pred. No. 8.1e-27;
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